



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/525,454	05/25/2006	Ole Noerklit	939-012140-US (PAR)	5077
2512	7590	02/24/2010	EXAMINER	
Perman & Green, LLP 99 Hawley Lane Stratford, CT 06614			BOCURE, TESFALDET	
			ART UNIT	PAPER NUMBER
			2611	
			MAIL DATE	DELIVERY MODE
			02/24/2010	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/525,454	<b>Applicant(s)</b> NOERKLIT, OLE	
	<b>Examiner</b> Tesfaldet Bocure	<b>Art Unit</b> 2611	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 December 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>Drawing Correction of 12/16/09</u> .   |

**DETAILED ACTION**

1. Claims 1-20 are pending in this application.

***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Rejections - 35 USC § 112***

3. Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. The claimed :”said predetermined manner” in claims 2 and 3 lacks a clear antecedent basis. It should be noted that the “predetermine manner” has been amended in claim 1 to ---predetermined value. Therefore, amending claims 2 and 3 from “predetermined manned to “predetermined value” will correct the 112 reject.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not

Art Unit: 2611

described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

it is not clear from the disclosure and the claimed "ignoring the lesser member of a pair of peaks for the allocation of paths to rake fingers, if the magnitudes of the peaks of said pair differ in a predetermined manner, so as to exclude spurious paths, the pairs comprising peaks temporally separated by a period characteristic of the separation of main and side lobes of filters for producing the baseband pulse shape expected by the receiver." How is the lesser peak related to the output of the impulse response measurement? It has been disclosed with respect to fig. 3 in page 5, lines 5-12 that the "---the temporal distance between delays output the impulse measurement process 20 (step s1). If none of these distances is equivalent 1.5 chips (i.e.  $3 \times 0.5$  chips which is the sampling period of the filters in the system), the four delays having the greatest magnitudes are then selected and supplied to respective rake fingers 21a, 21b, 21c, 21d (step s3). Again, in page 5, lines 14-24, "--- The resultant values are compared with 0.0643 (step s5) and, if they are lower, the peak of the current pair having the lower magnitude is removed from the set of 20 peaks output by the impulse response measurement process 22 (step s6). When all of the pairs of 1.5 chip separated peaks have been processed, the best four remaining peaks are selected and the corresponding delays provided to the rake fingers 21a, 21b, 21c, 21d (step s3)---," does it mean that the peak having chip distance value of 1.5 is first measured and then the magnitude second in order to determine as to which of the delay outputs determine the selection? On the other hand, is it the magnitude first measured and the distance

Art Unit: 2611

second? Clarification required. It should be noted that the claimed subject matter in claims 1 and 11 is only mentioning the magnitude not the disclosed distance and seems applicant is missing a critical step, step of measuring the distance, unless otherwise the claimed "the pairs comprising peaks temporally separated by a period characteristic of the separation of main and side lobes of filters for producing the baseband pulse shape--" is refereeing to the chip delay.

Referring to figure 3 which describes best to the claimed invention, first and foremost, after calculating the distance between peaks (S1), it is the chip distance of 1.5 first analyzed (S2) , second the ratio (S4), third the threshold (s5) and then the removal of the lower peak (S6). However, as claimed, "wherein the path allocating means is configured to compare the magnitude of the pair peak, represented in the output of the impulse response measurement means and remove the peak of the of a current pair have lower magnitude---"in claim 1, which is best described according to the step S6 is missing a lot of steps, i.e., steps S2, S4 and S5. The same is true with the claimed " wherein if the magnitudes of the pair of peaks differ from a predetermined value calculated to exclude spurious paths, the pairs comprising peaks temporally separated by a period characteristic of the separation of main and side lobes of filters for producing the baseband pulse shape expected by the receiver are used for the allocation of the paths to the rake fingers" in claim 1 which is best described by the step S4 and missing step S2,

The same is true with the claimed steps for “ignoring the lesser magnitude of a pair of peaks for the allocation to rake fingers, wherein if the magnitude----“claimed in claim 11.

Examiner is kindly requesting applicant to provide a wave form to understand how the distance and peak values are related in order to understand the claimed and disclosed invention.

Claims 2-10 and 12-20 are inherently rejected as being dependent on the rejected base claims.

***.Response to Amendment***

6. The amendment and remarks received on 12/16/09 overcomes the following rejections and objection:

- a. The objection to the drawing and the Abstract of the disclosure;
- b. The 112 1<sup>st</sup> paragraph rejection “[W] what do you mean by “predetermined manner”? How is claimed “the pairs comprising peaks temporally separated by a period characteristic of the separation of main and side lobes of filters for producing the baseband pulse shape---“ utilized in defining the to the peak should be accepted or ignored in allocating the Rake fingers?,” indicated in the office action mailed on 9/16/09.

7. In response to Applicant’s argument that :

Applicant's claimed subject matter is directed to removing peaks with spurious paths in the allocation of rake fingers to paths. The delay section

Art Unit: 2611

process, or path allocation means compares the temporal distances between the delay outputs by the impulse measurement process. If none of the distances are the equivalent of 1.5 chips, the four delays have the greatest magnitudes are selected and applied to the rake fingers. When all of the pairs of 1.5 chips separated peaks are processed, the best four remaining peaks are selected and the corresponding delays provided to the rake fingers. If any 1.5 chip distances are found, the magnitudes of the peaks in the pair are measured and the peak of the current pair having the lower magnitude is removed from the set of peaks output by the impulse response measurement means.

Examiner agree with the Applicant's assertion that the specification first test the distance between the peak according the chip distance of 1.5 as shown in step S2; however, none of the claimed language reflects to what Applicant is asserting.

In response to Applicant's argument that:

The wording wherein if the magnitudes of the pair of peaks differ from a predetermined value calculated to exclude spurious paths can generally be interpreted to mean that the ratio of the pair's amplitudes fall within a predetermined range.

The 112 rejection raised in the last office regarding this issue has been withdrawn by the Examiner.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

c. US patent numbers 6,229,842, 6,442,193 and 6,757,345 and US patent publication numbers 2002/0159422 and 2004/0132443 issued to Schilist et al., Hirsch, Heinila, Li et al. and Klein respectively disclose a rake receiver having means for selecting a rake finger to the measured channel response. However,

the above cited references fail to teach the claimed “ignoring the lesser member of a pair of peaks for the allocation of paths to rake fingers, if the magnitudes of the peaks of said pair differ in a predetermined manner, so as to exclude spurious paths, the pairs comprising peaks temporally separated by a period characteristic of the separation of main and side lobes of filters for producing the baseband pulse shape expected by the receiver.”

9. Applicant's amendment<sup>1</sup> necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

---

<sup>1</sup> The amendment to claim 1 (“predetermined manner” amended to “---predetermined value” in claim 1, lines 11-12) result in lack of antecedent basis to claims 2 and 3.



Art Unit: 2611

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tesfaldet Bocure whose telephone number is (571) 272-3015. The examiner can normally be reached on Mon-Thur (8:00a-5:30p) & Mon.-Fri (8:00a-5:30p).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammed H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tefaldet Bocure/  
Primary Examiner, Art Unit 2611

//T. B./  
Primary Examiner, Art Unit 2611